



STATE OF MARYLAND

DMMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

Office of Preparedness & Response

Sherry Adams, R.N., C.P.M, Director

Isaac P. Ajit, M.D., M.P.H., Deputy Director

May 22, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:19 Reporting for the week ending 05/16/09 (MMWR Week #19)

CURRENT HOMELAND SECURITY THREAT LEVELS

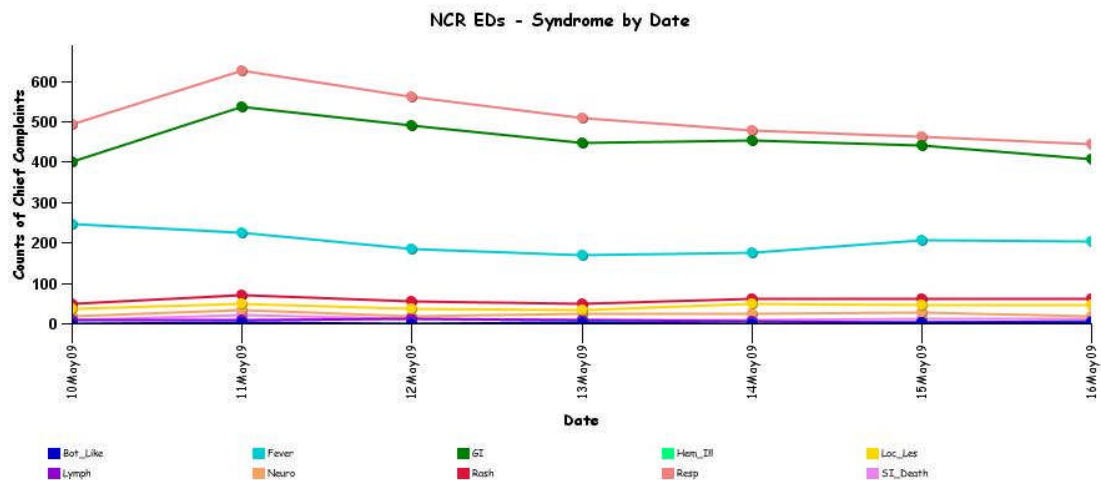
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

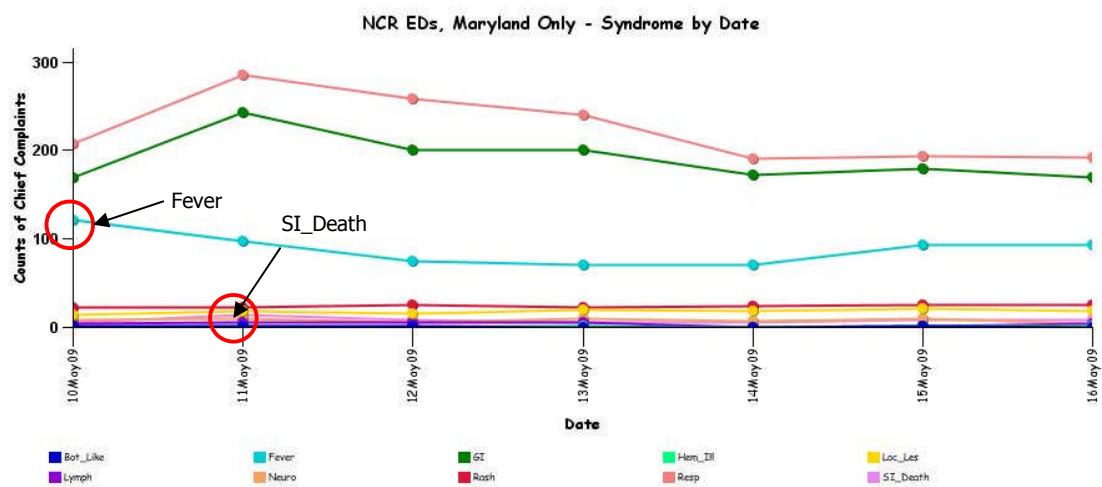
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

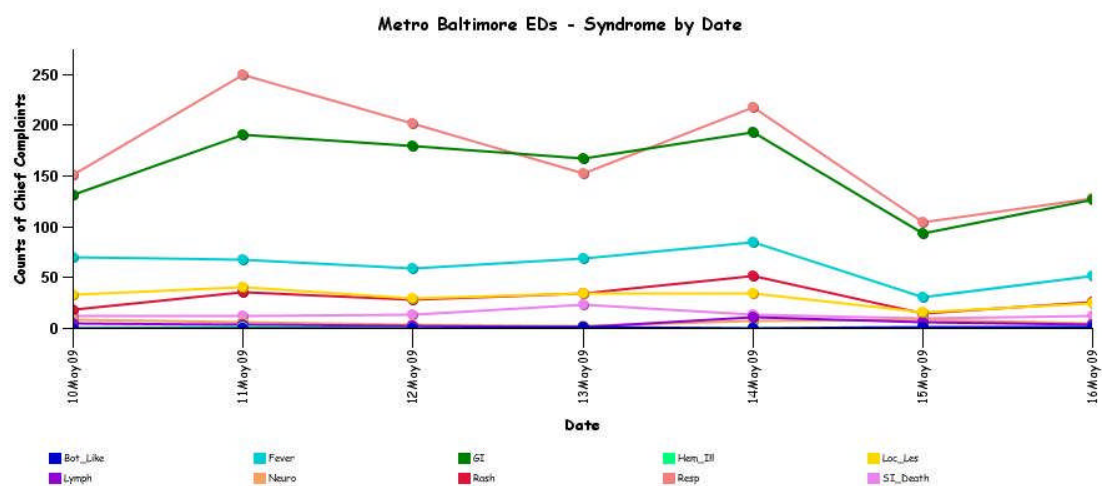
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system.



* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system.

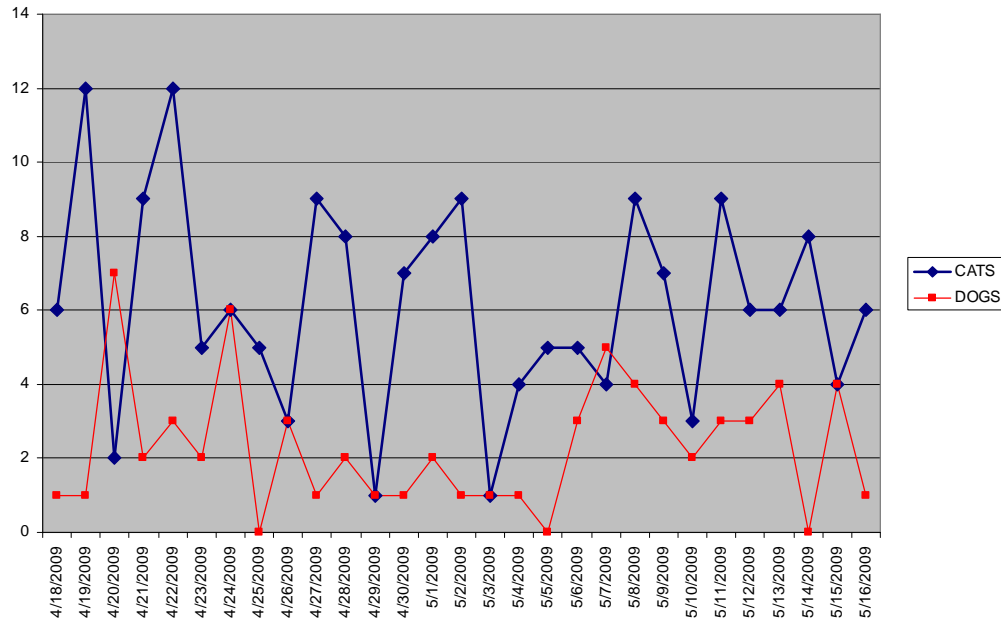


* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

** **Red Alerts are not indicated on this graph.**

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

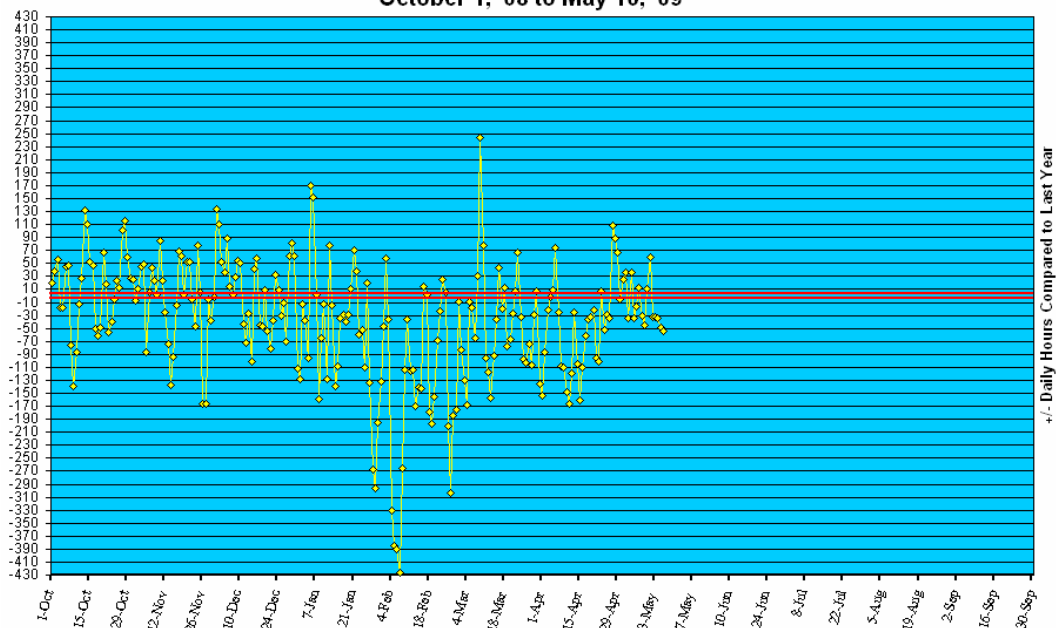
Dead Animal Pick-Up Calls to 311



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '08 to May 16, '09**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in April 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (May 10 – 16, 2009):	10	0
Prior week (May 03 – 09, 2009):	11	0
Week#19, 2008 (May 04 – 10, 2008):	13	0

OUTBREAKS: 4 outbreaks were reported to DHMH during MMWR Week 19 (May 10-16, 2009):

1 Food borne Gastroenteritis outbreak

1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant

3 Rash illness outbreaks

1 outbreak of SCABIES associated with a Nursing Home

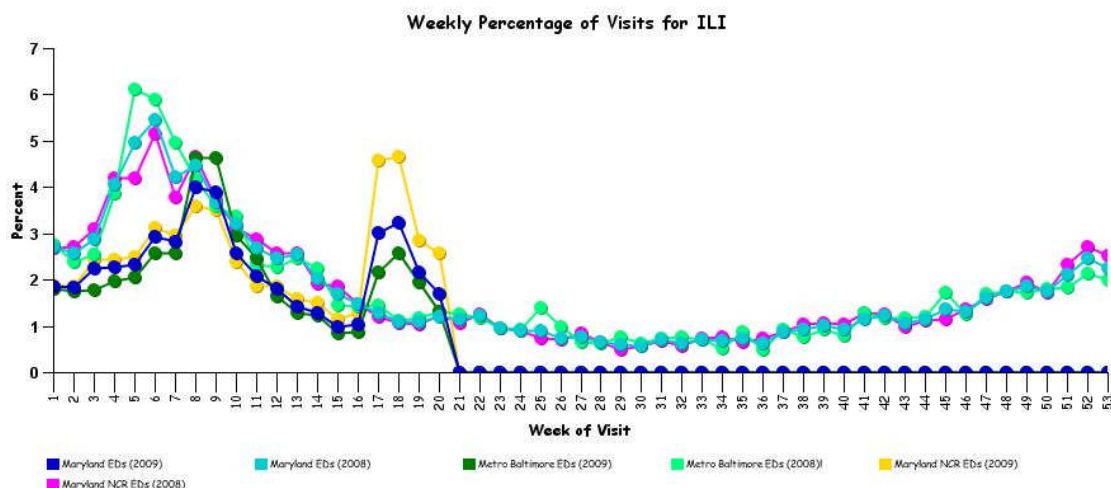
1 outbreak of RINGWORM associated with a School

1 outbreak of FIFTH DISEASE associated with a School

MARYLAND SEASONAL FLU STATUS: Influenza activity in Maryland for Week 19 is LOCAL. During Week 19, 28 confirmed cases of influenza were reported to DHMH.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



***Graph shows proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.**

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 5: Characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

****More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:**
<http://bioterrorism.dhmmh.state.md.us/flu.htm>

WHO update: As of May 15, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 424, of which 261 have been fatal. Thus, the case fatality rate for human H5N1 is about 61%.

AVIAN INFLUENZA, HUMAN (Egypt): 16 May 2009, The Ministry of Health of Egypt has reported a new confirmed human case of avian influenza. The patient is a 5 year old girl from Tama District, Sohag Governorate. Her symptoms began on 7 May 2009 and she was admitted in Sohag Fever Hospital on 9 May 2009 where she received oseltamivir. She is in stable condition. The case was confirmed by the Egyptian Central Public Health Laboratories on 10 May 2009. Investigations into the source of infection indicate close contact with dead and sick poultry. The Ministry of Health of Egypt has announced the deaths of previously confirmed cases of H5N1 as follows: a 6 year old boy from Qalibia Governorate; a 33 year old woman from Kfr El Sheikh Governorate; and a 25 year old woman from Cairo Governorate. Of the 69 cases confirmed to date in Egypt, 26 have been fatal.

AVIAN INFLUENZA, HUMAN (Egypt): 14 May 2009, A 4 year old Egyptian boy has contracted the highly pathogenic H5N1 bird flu virus, bringing to 70 the number of human avian flu cases in the most populous Arab country, the state news agency MENA reported. Egypt has been hit harder by the virus than any other country outside Asia and has seen a surge of cases in recent weeks. Ten new human infections have been reported since 1 Apr 2009, more than the country saw in all of 2008. The latest sufferer from the virus is from the Nile Delta province of Sharkiya, MENA said. MENA reported that the boy, believed to have contracted the virus from sick household birds, had entered hospital suffering from a high fever and showing flu symptoms. He was being treated with the anti-viral drug Tamiflu [oseltamivir] and was in a stable condition, MENA added.

AVIAN INFLUENZA (LPAI), POULTRY (Tennessee): 14 May 2009, A Tennessee flock of 15,000 breeder hens has been culled after tests revealed a mild strain of avian influenza. The birds, which were being raised under contract for Tyson Foods, showed no signs of illness and there was no threat to human health, said the company. Tests revealed presence of H7N9 flu antibodies, not the highly pathogenic H5N1 strain identified in Asia, Europe, and Africa. The outbreak in Tennessee is unrelated to the H1N1 influenza virus termed swine flu. Tyson is to step up its surveillance procedures for avian flu in its breeders' flocks.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA A (H1N1) (Worldwide): 15 May 2009, As of 06:00 GMT, 15 May 2009, 34 countries have officially reported 7520 cases of influenza A(H1N1) infection. Mexico has reported 2446 laboratory confirmed human cases of infection, including 60 deaths. The United States has reported 4298 laboratory confirmed human cases, including 3 deaths. Canada has reported 449 laboratory confirmed human cases, including one death. Costa Rica has reported 8 laboratory confirmed human cases, including one death. The following countries have reported laboratory confirmed cases with no deaths - Argentina (1), Australia (1), Austria (1), Belgium (1), Brazil (8), China (4), Colombia (10), Cuba (3), Denmark (1), El Salvador (4), Finland (2), France (14), Germany (12), Guatemala (3), Ireland (1), Israel (7), Italy (9), Japan (4), Netherlands (3), New Zealand (7), Norway (2), Panama (40), Poland (1), Portugal (1), Republic of Korea (3), Spain (100), Sweden (2), Switzerland (1), Thailand (2), and the United Kingdom (71).

INFLUENZA A (H1N1) (Worldwide): 13 May 2009, The World Health Organization (WHO) said that it is unable to assign a severity scale to the influenza A (H1N1) epidemic for the reason that disease characteristics and responses of countries vary. Dr Sylvie Briand, with the WHO Global Influenza Programme, spoke on 13 May 2009 at a media briefing in Geneva. According to Dr Briand, the WHO pandemic alert level phases are mainly based on the transmission of the virus and its geographical spread, while "the severity itself is assessed by other means." Currently, the pandemic alert level has remained at level 5 out of 6, indicating community-based outbreaks in a single WHO region. The severity of a potential pandemic is based on 3 factors: "the characteristics of the virus, the vulnerability of the population, and the intervention we can put in place to reduce the impact of severe disease," Dr Briand said. Assessing severity is important for helping countries determine their response to an outbreak, but at a global level, a severity index is "not very helpful" because "severity will vary from place to place," she said. Dr Briand pointed out that while wealthier countries may have the resources to mount a more effective response to an outbreak, some developing parts of the world such as West Africa are already used to coping with epidemics and may be at an advantage due to having healthcare systems in place. This is referred to as the "resilience" of a country, she said. Dr Briand also emphasized that oseltamivir and zanamivir are

effective against this novel H1N1 strain, which is in contrast to the seasonal influenza strain, which is resistant to these antiviral drugs.

INFLUENZA A (H1N1), SWINE (Canada): 14 May 2009, 500 hogs have been culled on a pig farm in central Alberta where the herd was found to be infected with the new swine flu virus. Authorities say the decision to cull the animals was a result of discussions between the producer and federal and Alberta officials. They say it was the best course of action for the welfare of the herd and that it eased overcrowding conditions on the farm. The entire herd of 1700 pigs remains under quarantine. Health officials say because of the quarantine the producer was unable to ship hogs to market and as a result the farm had reached maximum capacity. Meanwhile, several new human cases of swine flu were reported on 9 May 2009 in Canada, bringing the total nationwide to 281.

INFLUENZA A (H1N1) (Worldwide): 12 May 2009, WHO is investigating a claim by an Australian researcher that the swine flu virus circling the globe may have been created as a result of human error. Adrian Gibbs, 75, who collaborated on research that led to the development of Roche Holding's Tamiflu drug, said in an interview that he intends to publish a report suggesting the new strain may have accidentally evolved in eggs scientists use to grow viruses and drug makers use to make vaccines. Gibbs said he came to his conclusion as part of an effort to trace the virus's origins by analyzing its genetic blueprint. "One of the simplest explanations is that it's a laboratory escape," Gibbs said in an interview with Bloomberg Television on 14 May 2009. But there "are lots of others." WHO received the study last weekend and is reviewing it, Keiji Fukuda, the agency's assistant director-general of health security and environment, said in an interview 11 May 2009. Gibbs, who has studied virus evolution for 4 decades, is one of the 1st scientists to analyze the genetic makeup of the virus that was identified 3 weeks ago in Mexico and threatens to touch off the 1st flu pandemic since 1968. Gibbs and 2 colleagues analyzed the publicly available sequences of hundreds of amino acids coded by each of the flu virus's 8 genes. He said he aims to submit his 3-page paper today [14 May 2009] for publication in a medical journal. CDC in Atlanta has received the report and has decided there is no evidence to support Gibbs's conclusion, said Nancy Cox, director of the agency's influenza division. She said since researchers don't have samples of swine flu viruses from South America and Africa, where the new strain may have evolved, those regions can't be ruled out as natural sources for the new flu. "We are interested in the origins of this new influenza virus," Cox said. "But contrary to what the author has found, when we do the comparisons that are most relevant, there is no evidence that this virus was derived by passage in eggs." WHO's collaborative influenza research centers, which includes CDC, and sites in Memphis, Melbourne, London and Tokyo, were asked by the international health agency to review the study over the weekend, Fukuda said. The request was extended to scientists at the Food and Agriculture Organization in Rome, the World Organization for Animal Health [OIE] in Paris, as well as the WHO's influenza network, he said. "My guess is that the picture should be a lot clearer over the next few days," Fukuda said. "We have asked a lot of people to look at this."

Resources:

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmv.maryland.gov/swineflu/>

NATIONAL DISEASE REPORTS:

No new disease outbreaks related to CDC Critical Biological Agents were reported for MWWR week 19.

INTERNATIONAL DISEASE REPORTS:

MUSHROOM POISONING, FATAL (Kyrgyzstan): 16 May 2009, There have been 2 cases of mushroom poisoning registered in Kyrgyzstan. One of them was a baby who died as a result of severe intoxication. In addition, 3 more children are in the intensive care unit. Another case was a family of 2 children and a mother. The mother is in coma; one boy is dead, while the other one is improving. The family was gathering mushrooms they were thought were the edible version of the blue-leg mushroom (*Lepista saeva*) which doctors think had mutated into a very poisonous type. Several more people hospitalized with poisoning said that they were gathering mushrooms near the airport where the discharge of highly toxic gasoline may have caused a less than favorable environment for mushrooms. Altogether more than 10 people are suffering from the poisoning and doctors are thinking this is only the beginning of an outbreak. There was evidence the poisonous mushrooms have appeared in the marketplace. The Ministry of Health is working on prohibiting sale of any wild growing mushrooms. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (Malaysia): 14 May 2009, On chikungunya virus infection, director general of health Tan Sri Dr Mohd Ismail Merican said 96 cases were reported for the week ending 9 May 2009 compared to 71 in the previous week. "5 states recorded a rise in the number of cases, namely Kedah, Penang, Selangor, Kuala Lumpur-Putrajaya, and Sarawak," he said. He said the number of cumulative cases of chikungunya up to May 9 was 1609. No deaths had been reported. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (Thailand): 14 May 2009, Chikungunya infection, the viral disease that is sweeping the deep south, has now surfaced in Phuket, according to the Phuket Provincial Health Office. A press release issued by Kusuma Sawangpan of the Disease Control and Prevention Division confirmed 4 cases of the disease on the island, with all the patients being treated at Vachira Phuket Hospital. The vector for the disease is the *Aedes* spp. mosquito, which also spreads misery in the form of yellow and dengue fevers. Chikungunya virus infection symptoms, similar to those of dengue fever, include an initial period of very high fever, typically lasting a few days, with a longer period of joint and muscle pain, headaches, and insomnia. Following exposure, the incubation period for the virus in the bloodstream is typically 2 to 4 days, up to a maximum of 12. There are, as yet, no antiviral drug treatments for chikungunya virus infection, nor is there a vaccine against it. A chikungunya epidemic has already struck Thailand's 4 southernmost provinces, logging 20,000 sufferers but no fatalities. Dr Sanphong Rittiraksa, a preventive medicine expert at the Songkhla Provincial Health Office, said on 5 May 2009 that Narathiwat was the hardest hit province, with 7000 patients, followed by Songkhla with 6500. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (India): 12 May 2009, Six new cases of cutaneous anthrax were detected among Kondhs - a primitive tribal group - at Karlapodur and Hatikal hamlets in Laxmipuram panchayat, about 20 km from Munchingput, Visakhapatnam district and 200 km from Visakhapatnam even as the Health Department stepped up its effort to contain the spread of the bacterial infection. In new cases - 5 of them from Karlapodur on Andhra-Orissa border [ages: 25, 20, 60, 28, 26] were confirmed after the Kondhus consumed the meat of a cow carcass on 23 Apr 2009. With this the number of patients affected by anthrax after consuming dead meat/cutting the carcasses has increased to 65 since the 1st case was reported in March 2009. "The infection is under control," according to joint director of animal husbandry Y Simhachalam. The 5 patients and the lone case from Hatikal, 17, developed skin infection and multiple wounds on their body since past 2 to 7 days. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

UNDIAGNOSED ILLNESS (Nepal): 12 May 2009, More than 60 people at Jaimakashala in Rolpa district in mid-western Nepal have been taken ill due to a mysterious disease that spread in the village 3 days ago. According to Tuesday's [12 May 2009] eKantipur.com, most of the victims are women, elderly, and children. An official at the District Public Health Office informed that a team of health workers has been dispatched to the disease-hit area, some 270 km west of Kathmandu, to take stock of the situation and to offer treatment to the sick. All patients have similar symptoms of acute headache, fever, and vomiting up blood, a health worker said. He said that the disease may have been caused due to consumption of polluted water and inadequate sanitation. With no health worker at the local health post, the patients could not receive treatment on time. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://bioterrorism.dhmq.state.md.us/>

Serum Cross-Reactive Antibody Response to a Novel Influenza A (H1N1) Virus after Vaccination with Seasonal Influenza Vaccine

This report describes the results of CDC's assessment of the level of cross-reactive antibody to the novel influenza A (H1N1) virus in cohorts of children and adults before and after they had been vaccinated with the 2005-06, 2006-07, 2007-08, or 2008-09 influenza season vaccines. These data suggest that receipt of recent (2005-2009) seasonal influenza vaccines is unlikely to elicit a protective antibody response to the novel influenza A (H1N1) virus. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5819a1.htm>

Novel Influenza A (H1N1) Virus Infections in Three Pregnant Women - United States, April-May 2009

This report provides preliminary details of three cases of novel influenza A (H1N1) virus infection in pregnant women. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5818a3.htm>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Heather N. Brown, MPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: HBrown@dhmh.state.md.us

Sadia Aslam, MPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: SAslam@dhmh.state.md.us